

## Post-acute care

Skilled nursing facilities
Home health services
Inpatient rehabilitation facilities
Long-term care hospitals

The number of post-acute care providers decreased **Chart 8-1.** slightly in 2018

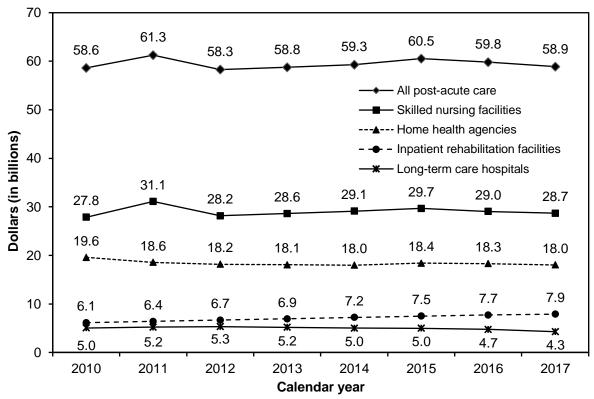
	2014	2015	2016	2017	2018	Average annual percent change 2014–2018	Percent change 2017–2018
Home health agencies	12,461	12,346	12,204	11,844	11,783	-1.4%	-0.5%
Inpatient rehabilitation facilities	1,177	1,182	1,188	1,178	1,170	-0.1	-0.7
Long-term care hospitals	422	426	423	411	386	-2.2	-6.1
Skilled nursing facilities	15,173	15,223	15,263	15,277	15,230	0.1	-0.3

Note: The skilled nursing facility count does not include swing beds.

Source: MedPAC analysis of data from the Provider of Services files from CMS.

- The number of home health agencies has been declining since 2013 after several years of substantial growth (data not shown). The decline in agencies was concentrated in Texas and Florida, two states that saw considerable growth after the implementation of the home health prospective payment system in October 2000.
- The supply of inpatient rehabilitation facilities (IRFs) has been relatively stable since 2014. Most IRFs are distinct units in acute care hospitals; about one-quarter are freestanding facilities. However, because freestanding IRFs tend to have more beds, they account for about half of Medicare discharges from IRFs.
- After peaking in 2012 (data not shown), the number of long-term care hospitals (LTCHs) has decreased. The number of LTCHs declined more rapidly following the implementation of a new "dual payment-rate structure" that reduces payments for certain Medicare discharges from LTCHs beginning in fiscal year 2016.
- The total number of skilled nursing facilities (SNFs) has increased slightly since 2009, and the mix of facilities shifted from hospital-based to freestanding facilities (data not shown). In 2018, hospital-based units made up 4 percent of all SNF facilities (data not shown).

Chart 8-2. Medicare's fee-for-service post-acute care expenditures have been relatively stable since 2012



Note: These calendar year-incurred data represent only program spending; they do not include beneficiary cost sharing.

Source: CMS Office of the Actuary 2019.

- Aggregate fee-for-service (FFS) spending on post-acute care (PAC) has remained stable since 2012, in part because of expanded enrollment in managed care under Medicare Advantage (Medicare Advantage spending is not included in this chart). However, spending growth has varied by PAC sector.
- FFS spending on inpatient rehabilitation facilities declined between 2004 and 2008, reflecting policies intended to ensure that patients who do not need this intensity of services are treated in less-intensive settings (data not shown). However, spending on inpatient rehabilitation facilities has increased since 2008.
- FFS spending on skilled nursing facilities increased sharply in 2011, reflecting CMS's
  adjustment for the implementation of the new case-mix groups (resource utilization groups,
  version IV). Once CMS established that the adjustment it made was too large, it lowered the
  adjustment, and spending dropped in 2012 and has remained stable since.
- FFS spending on long-term care hospitals has decreased by 14 percent since 2015, largely
  due to the implementation of the dual payment-rate structure that reduced payments for
  certain long-term care hospital cases.

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Freestanding SNFs and for-profit SNFs accounted **Chart 8-3.** for the majority of facilities, Medicare stays, and **Medicare** spending

Facilities		Medicare-co	Medicare payments (billions)			
Type of SNF	2011	2017	2011	2017	2011	2017
Totals	14,935	15,090	2,455,730	2,266,301	\$28.8	\$25.9
Freestanding	95%	96%	93%	96%	97%	97%
Hospital based	5	4	7	4	3	3
Urban	71	73	81	83	84	85
Rural	29	27	19	17	16	15
For profit	70	71	72	71	76	75
Nonprofit	25	23	25	24	21	21
Government	5	6	3	4	3	4

SNF (skilled nursing facility). Totals may not sum to 100 percent due to rounding and missing values. The spending Note: amount included here is lower than that reported by the Office of the Actuary, and the count of SNFs is slightly lower than what is reported in the Provider of Services file.

Source: MedPAC analysis of the Provider of Services and Medicare Provider Analysis and Review files, 2011 and 2017.

- In 2017, freestanding facilities accounted for 96 percent of stays and 97 percent of Medicare's payments.
- Urban facilities accounted for 73 percent of facilities, 83 percent of stays, and 85 percent of Medicare payments in 2017.
- In 2017, for-profit facilities accounted for 71 percent of facilities and stays and 75 percent of Medicare payments.

SNF admissions and stays declined in 2017 Chart 8-4.

Volume measure	2013	2015	2016	2017	Percent change 2016–2017
Covered admissions per 1,000 FFS beneficiaries	69.3	68.9	65.9	64.6	-2.0%
Covered days per 1,000 FFS beneficiaries	1,872	1,824	1,693	1,623	-4.1
Covered days per admission	27.0	26.5	25.7	25.1	-2.3

SNF (skilled nursing facility), FFS (fee-for-service). Data include 50 states and the District of Columbia. Yearly figures presented in the table are rounded, but the percent-change column was calculated using unrounded data.

Source: Calendar year data from CMS, Office of Information Products and Data Analytics 2017.

- In 2017, 4.2 percent of beneficiaries enrolled in Medicare fee-for-service used SNF services, down slightly from 2011 (data not shown).
- Between 2016 and 2017, SNF admissions per 1,000 FFS beneficiaries decreased 2 percent. The decline is consistent with a decline in FFS per capita inpatient hospital stays that were three days or longer and therefore qualified for Medicare coverage of SNF care.
- During the same period, covered days per admission declined 2.3 percent to 25.1 days, so there were fewer covered days per 1,000 beneficiaries.

Freestanding SNF Medicare margins remained high Chart 8-5. in 2017

	2010	2012	2014	2015	2016	2017
All	19.4%	14.1%	12.8%	12.7%	11.6%	11.2%
Rural	19.5	13.3	10.9	10.9	9.9	9.7
Urban	19.4	14.2	13.1	13.0	11.9	11.5
Nonprofit	11.4	5.7	4.2	4.4	2.3	1.7
For profit	21.3	16.3	15.2	15.1	14.2	13.7

SNF (skilled nursing facility). Note:

Source: MedPAC analysis of freestanding SNF cost reports 2010–2017.

- Though lower than in recent years, the aggregate Medicare margin for freestanding SNFs in 2017 exceeded 10 percent for the 18th consecutive year (not all years are shown). After reaching over 21 percent in 2011 (not shown), the margins have declined primarily because current law requires annual market basket increases to payments to be offset by a productivity adjustment.
- In 2017, on average, urban facilities had higher Medicare margins than rural facilities. Forprofit SNFs had considerably higher Medicare margins than nonprofit SNFs, reflecting their larger size, their lower cost growth, and their higher share of the more profitable therapy case-mix groups (the ultra-high and very high groups).
- In 2017, total margins (the margin across all payers and all lines of business) for freestanding facilities remained positive (0.5 percent, data not shown).

Chart 8-6. Cost and payment differences explain variation in Medicare margins for freestanding SNFs in 2017

Characteristic	Highest margin quartile (n = 3,284)	Lowest margin quartile (n = 3,283)	Ratio of highest quartile to lowest quartile
Cost measures			
Standardized cost per day Standardized cost per discharge Average daily census (patients)	\$271 \$11,285 87	\$399 \$14,116 65	0.68 0.80 1.35
Revenue measures			
Medicare payment per day Medicare payment per discharge Share of days in intensive therapy Share of medically complex days Medicare share of facility revenue Average length of stay (days) Medicaid share of days	\$522 \$22,470 88% 3 23 42 66	\$452 \$15,714 80% 4 13 35 57	1.15 1.43 1.10 0.75 1.77 1.21 1.16
Patient characteristics			
Case-mix index Share of dual-eligible beneficiaries Share of minority beneficiaries Share of very old beneficiaries	1.41 39% 14 30	1.32 26% 5 35	1.07 1.50 2.80 0.86
Facility mix			
Share for profit Share urban	86% 79	57% 70	N/A N/A

Note: SNF (skilled nursing facility), N/A (not applicable). Values shown are medians for the quartile. Highest margin quartile SNFs were in the top 25 percent of the distribution of Medicare margins. Lowest margin quartile SNFs were in the bottom 25 percent of the distribution of Medicare margins. "Standardized cost per day" includes Medicare costs adjusted for differences in area wages and the case mix (using the nursing component's relative weights) of Medicare beneficiaries. "Days in intensive therapy" are days classified into ultra-high and very high rehabilitation case-mix groups. "Very old beneficiaries" are 85 years or older. "Medically complex days" are those assigned to clinically complex or special-care case-mix groups. Quartile figures presented in the table are rounded, but the ratio column was calculated using unrounded data.

Source: MedPAC analysis of freestanding SNF cost reports 2017.

- Medicare margins varied widely across freestanding SNFs. One-quarter of SNFs had Medicare margins at or below 0.8 percent, and one-quarter of facilities had Medicare margins at or above 20.2 percent (data not shown).
- High-margin SNFs had lower costs per day (32 percent lower costs than low-margin SNFs), after adjusting for wage and case-mix differences, and higher revenues per day (15 percent).
- Facilities with the highest Medicare margins had higher case-mix indexes, higher shares of beneficiaries who were dually eligible for Medicare and Medicaid, and higher shares of minority beneficiaries.

Financial performance of relatively efficient SNFs in **Chart 8-7.** 2017 reflects a combination of lower cost per day and higher payment per day

	Relatively efficient SNFs	Other SNFs
Performance in 2017		
Community discharge rate	50.3%	39.8%
Readmission rate	9.0%	10.9%
Standardized cost per day	\$297	\$324
Medicare revenue per day	\$526	\$476
Medicare margin	18.0%	10.5%
Total margin	2.3%	0.6%
Facility case-mix index	1.44	1.36
Medicare average length of stay	30 days	38 days
Occupancy rate	87%	85%
Average daily census	100	79
Share of ultra-high therapy days	66%	55%
Share of medically complex days	4.2%	3.8%
Medicaid share of facility days	58%	63%
Share urban	84%	67%
Share for profit	79%	68%

Note:

SNF (skilled nursing facility). The analysis includes 11,462 freestanding facilities. SNFs were defined as "relatively efficient" by their cost per day measure (2014-2016) and two quality measures (community discharge and readmission rates) for the same period (2014–2016). Relatively efficient SNFs were those in the best third of the distribution of any one measure and not in the bottom third on any measure in each of three years. Eight percent of SNFs qualified as relatively efficient. Costs per day were standardized for differences in case mix (using the nursing component relative weights) and wages. Rates of risk-adjusted community discharge and readmission for patients with potentially avoidable conditions during the SNF stay are quality measures and were calculated for all facilities with at least 25 stays. "Ultra-high therapy days" include days with at least 720 minutes per week of therapy. "Medically complex days" are those assigned to clinically complex or special-care case-mix groups.

Source: MedPAC analysis of quality measures and Medicare cost report data for 2014–2017.

- "Relatively efficient SNFs" are defined as consistently providing relatively low-cost and highquality care compared with other SNFs. Compared with other SNFs in 2017, relatively efficient SNFs furnished considerably higher quality (higher discharge to community rates and lower readmission rates) and had costs per day that were 8 percent lower.
- Compared with other SNFs in 2017, relatively efficient SNFs treated a similar share of medically complex patients, had a higher share of ultra-high therapy days, were larger, had shorter stays, had slightly higher occupancy rates, and had higher average daily censuses.

Chart 8-8. Trends in the provision of home health care

	2002	2016	2017	Percent change 2016–2017	Cumulative percent change 2002–2017
Number of users (in millions)	2.5	3.5	3.4	-1.7	35.1
Share of FFS beneficiaries who used home health care	7.2%	8.9%	8.8%	-1.4	22.5
Episodes (in millions)	4.1	6.5	6.3	-3.1	54.5
Episodes per home health patient	1.6	1.9	1.9	-1.4	14.3
Visits per home health episode	18.9	16.5	16.5	-0.1	-13.0
Visits per home health patient	30.8	31.3	30.8	-1.6	0.1
Average payment per episode	\$2,645	\$2,988	\$3,039	1.4	14.8

Note: FFS (fee-for-service). Yearly figures presented in the table are rounded, but the percent-change columns were calculated using unrounded data. Average payment per episode excludes low-use episodes with fewer than five visits.

Source: MedPAC analysis of the home health standard analytic file.

- The number of home health episodes has increased since 2002. The number of beneficiaries using home health care has also increased since 2002, albeit at a lower rate. In 2017, 3.4 million beneficiaries used the home health benefit.
- The number of visits per episode has decreased since 2002. However, this decline was
  offset by an increase in the average number of episodes per patient, which increased from
  1.6 in 2002 to 1.9 in 2017. Beneficiaries received fewer visits in an episode but had more
  60-day episodes of care.

Most home health episodes are not preceded by Chart 8-9. hospitalization or PAC stay

	Number of episodes (in millions)			Percent change	
	2001	2011	2017	2001–2011	2011–2017
Episodes preceded by a hospitalization or PAC stay	1.9	2.2	2.2	14.8%	2.2%
Episodes not preceded by a hospitalization or PAC stay	2.1	4.6	4.1	123.8	-10.9
Total	3.9	6.8	6.3	73.3	-7.3

Note: PAC (post-acute care). "Episodes preceded by a hospitalization or PAC stay" refers to episodes that occurred less than 15 days after a stay in a hospital (including a long-term care hospital), skilled nursing facility, or inpatient rehabilitation facility. "Episodes not preceded by a hospitalization or PAC stay" refers to episodes for which there was no hospitalization or PAC stay in the previous 15 days. Numbers may not sum due to rounding.

Source: 2017 home health standard analytic file, 2017 Medicare Provider and Analysis Review file, and 2017 skilled nursing facility standard analytic file.

- The rise in the average number of episodes per beneficiary since 2001 coincided with a relative shift away from using home health care as a PAC service.
- Between 2001 and 2011, the number of episodes not preceded by a hospitalization or PAC stay increased by about 124 percent compared with an almost 15 percent increase in episodes that were preceded by a hospitalization or PAC stay. During that same period, the share of all episodes not preceded by a hospitalization or PAC stay rose from about 53 percent to 67 percent (data not shown). Since 2011, however, the number of home health episodes not preceded by a hospitalization or PAC stay has declined 10.9 percent while the number of episodes preceded by a hospitalization or PAC stay has increased 2.2 percent. Even so, about two-thirds of home health episodes were not preceded by an inpatient hospital or PAC stay in 2017.
- Beneficiaries for whom the majority of home health episodes were preceded by a hospitalization or PAC stay had different characteristics from community-admitted beneficiaries (those who had no prior hospitalization or PAC). Community-admitted home health users were more likely to be dually eligible for Medicare and Medicaid, to have more home health episodes, and to have more episodes with a high share of home health aide services compared with those home health users coming from a hospitalization or other PAC stay (data not shown). Community-admitted users generally had fewer chronic conditions, tended to be older, and were more likely to have dementia or Alzheimer's disease (data not shown).

Chart 8-10. Medicare margins for freestanding home health agencies, 2016 and 2017

	2016	2017	Share of agencies 2017
All	15.5%	15.2%	100%
Geography			
Mostly urban	16.0	15.8	83
Mostly rural	13.8	13.4	17
Type of control			
For profit	16.8	16.4	88
Nonprofit	12.0	10.9	12
Volume quintile (lowest to hig	hest)		
First	8.5	7.4	20
Second	10.8	9.8	20
Third	11.6	11.5	20
Fourth	14.5	13.6	20
Fifth	17.4	17.0	20

Note: Agencies are characterized as urban or rural based on the residence of the majority of their patients.

Source: MedPAC analysis of 2016–2017 Medicare Cost Report files from CMS.

• In 2017, freestanding home health agencies (HHAs) (85 percent of all HHAs) had an aggregate margin of 15.2 percent. HHAs that served mostly urban patients in 2017 had an aggregate margin of 15.8 percent; HHAs that served mostly rural patients had an aggregate margin of 13.4 percent. The 2017 margin is consistent with the historically high margins the home health industry has experienced since the prospective payment system (PPS) was implemented in 2000. The margin from 2001 to 2016 averaged 16.5 percent (data not shown), indicating that most agencies have been paid well in excess of their costs under the PPS.

- For-profit agencies in 2017 had an average margin of 16.4 percent, and nonprofit agencies had an average margin of 10.9 percent.
- Agencies that serve more patients have higher margins. The agencies in the lowest volume quintile in 2017 had an aggregate margin of 7.4 percent, while those in the highest quintile had an aggregate margin of 17.0 percent.

Chart 8-11. Number of FFS IRF cases decreased in 2017

	2008	2013	2016	2017	Average annual percent change 2008–2016	Percent change 2016–2017
Number of IRF cases	356,000	373,000	391,000	380,000	1.2%	-2.7%
Cases per 10,000 FFS beneficiaries	100.4	99.1	100.9	98.5	0.1	-2.4
Payment per case	\$16,646	\$18,258	\$19,714	\$20,322	2.1	3.1
Average length of stay (in days)	13.3	12.9	12.7	12.7	-0.6	0.0

Note: FFS (fee-for-service), IRF (inpatient rehabilitation facility). Numbers of cases reflect Medicare FFS utilization only. Yearly figures presented in the table are rounded, but the percent-change columns were calculated using unrounded data.

Source: MedPAC analysis of Medicare Provider Analysis and Review data from CMS.

- The number of Medicare FFS IRF cases grew rapidly throughout the 1990s and the early years of the IRF prospective payment system, reaching a peak of about 495,000 in 2004 (data not shown).
- In 2004, CMS renewed its enforcement of the compliance threshold, which requires that 60 percent or more of an IRFs' cases have at least one of 13 specified conditions, and IRF volume began to fall. Between 2004 and 2008, the number of IRF cases fell almost 8 percent per year (data not shown). After 2008, volume began to increase slowly, rising an average of 1.2 percent per year from 2008 to 2016. Between 2016 and 2017, however, the number of FFS IRF cases fell 2.7 percent.
- In 2017, the number of IRF cases per 10,000 FFS beneficiaries fell to 98.5, down 2.4 percent from the previous year. Relatively few Medicare beneficiaries use IRF services because, to qualify for Medicare coverage, IRF patients must be able to both tolerate and benefit from intensive rehabilitation therapy, which typically consists of at least three hours of therapy a day for at least five days a week. With the decline in the number of IRF cases per FFS beneficiary, FFS Medicare's share of IRF discharges fell to 58 percent of total discharges as the volume of IRF cases across all payers rose slightly in 2017 (data not shown).
- Medicare payments per IRF case rose, on average, 2.1 percent per year between 2008 and 2016. Payments per case grew 3.1 percent between 2016 and 2017.

Chart 8-12. Most common types of FFS inpatient rehabilitation facility cases, 2017

Type of case	Share of cases
Stroke	20.5%
Other neurological conditions	15.0
Brain injury	10.7
Debility	10.6
Fracture of the lower extremity	10.4
Other orthopedic conditions	7.9
Cardiac conditions	5.8
Spinal cord injury	4.9
Major joint replacement of lower extremity	4.4
All other	9.8

Nota:

FFS (fee-for-service). "Other neurological conditions" includes multiple sclerosis, Parkinson's disease, polyneuropathy, and neuromuscular disorders. "Fracture of the lower extremity" includes hip, pelvis, and femur fractures. Patients with debility have generalized deconditioning not attributable to other conditions. "Other orthopedic conditions" excludes fractures of the hip, pelvis, and femur and hip and knee replacements. "All other" includes conditions such as amputations, arthritis, and pain syndrome. All Medicare FFS inpatient rehabilitation facility (IRF) cases with valid patient assessment information were included in this analysis.

Source: MedPAC analysis of Inpatient Rehabilitation Facility-Patient Assessment Instrument data from CMS.

- In 2017, the most frequently occurring case type among FFS beneficiaries admitted to IRFs was stroke, which accounted for 20.5 percent of Medicare FFS cases.
- The number and share of Medicare FFS cases with other neurological conditions has grown significantly. Between 2008 and 2017, the number of IRF discharges with other neurological conditions almost doubled, climbing 99 percent while the total number of Medicare IRF discharges increased 6 percent (data not shown).
- The distribution of case types differs by type of IRF. For example, in 2017, 16 percent of
  FFS cases in freestanding for-profit IRFs were admitted for rehabilitation after a stroke,
  compared with 26 percent of cases in hospital-based nonprofit IRFs (data not shown).
  Likewise, 21 percent of FFS cases in freestanding for-profit IRFs were admitted with other
  neurological conditions, more than twice the share admitted to hospital-based nonprofit IRFs
  (data not shown).

Inpatient rehabilitation facilities' Medicare margins Chart 8-13. by type of facility, 2008-2017

	2008	2010	2012	2014	2015	2016	2017
All IRFs	9.4%	8.6%	11.2%	12.2%	13.9%	13.3%	13.8%
Hospital based	3.8	-0.6	0.7	0.7	2.2	0.9	1.5
Freestanding	18.2	21.4	23.9	25.2	26.7	25.8	25.5
Urban	9.6	9.0	11.6	12.6	14.3	13.6	14.2
Rural	7.2	4.7	6.6	6.4	8.6	9.4	8.4
Nonprofit	5.3	2.1	2.1	1.7	3.5	1.6	2.2
For profit	16.9	19.6	22.9	23.6	24.9	24.2	23.8

Note: IRF (inpatient rehabilitation facility).

Source: MedPAC analysis of cost report data from CMS.

- The aggregate IRF Medicare margin increased in 2017 to 13.8 percent.
- Margins varied by ownership, with for-profit IRFs having substantially higher margins. At the same time, Medicare margins in freestanding IRFs far exceeded those of hospital-based facilities. Nevertheless, a quarter of hospital-based IRFs had Medicare margins greater than 11 percent (data not shown), indicating that many hospitals can manage their IRF units profitably. Further, despite the comparatively low average margin in hospital-based IRFs, evidence suggests that these units make a positive financial contribution to their parent hospitals. Commission analysis found that, in 2017, the aggregate inpatient Medicare margin for acute care hospitals with IRF units was nearly a percentage point higher than the margin of hospitals without IRF units (data not shown).
- Higher unit costs are a major driver of low margins in both hospital-based and nonprofit IRFs. However, the Commission has found that the mix of case types in IRFs is also correlated with profitability. IRFs with the highest margins have a higher share of neurological cases and a lower share of stroke cases. Further, we have observed differences in the types of stroke and neurological cases admitted to high- and low-margin IRFs. Stroke cases in the highest margin IRFs are much less likely to have paralysis than are stroke cases in the lowest margin IRFs. Neurological cases in the highest margin IRFs are much more likely to be neuromuscular disorders (such as amyotrophic lateral sclerosis) than are neurological cases in the lowest margin IRFs (data not shown).
- The Commission has found that high-margin IRFs have patients who are, on average, less severely ill in the acute care hospital than patients admitted to low-margin IRFs. Once admitted to and assessed by the IRF, however, the average patient profile changes, with patients treated in high-margin IRFs appearing to be more disabled than those in low-margin IRFs. This finding suggests the possibility that assessment and coding practices may contribute to greater revenues in some IRFs (data not shown).

Chart 8-14. Low standardized costs led to high margins for both hospital-based and freestanding IRFs, 2017

Characteristic	Lowest cost quartile	Highest cost quartile
- Characteristic	Lowest cost quartile	Tilgilest cost qualtile
Madian and you dischause		
Median cost per discharge	¢44.700	<b>COO 270</b>
All	\$11,762	\$20,379
Hospital based	12,290	20,374
Freestanding	11,212	20,778
Median Medicare margin		
All	26.9%	-21.43%
Hospital based	23.1	-21.27
Freestanding	30.6	-25.13
recolanding	30.0	23.13
Median		
Number of beds	48	18
Occupancy rate	72%	52%
Share of facilities in the quartile that are:		
Hospital based	37%	94%
Freestanding	63	6
recolanding	03	9
Nonprofit	28	65
For profit	67	20
Government	4	15
Urban	95	76
Rural	5	25

Note: IRF (inpatient rehabilitation facility). Cost per discharge is standardized for differences in wages across geographic areas, differences in case mix across providers, and differences across providers in the prevalence of high-cost outliers, short-stay outliers, and transfer cases. Totals may not sum to 100 percent due to rounding.

Source: MedPAC analysis of Medicare cost report and Medicare Provider Analysis and Review data from CMS.

- IRFs with the lowest standardized costs (those in the lowest cost quartile) had a median standardized cost per discharge that was 42 percent less than that of the IRFs with the highest standardized costs (those in the highest cost quartile).
- IRFs with the lowest costs tended to be larger: The median number of beds was 48 compared with 18 in the highest cost quartile. In addition, IRFs with the lowest costs had a higher median occupancy rate (72 percent vs. 52 percent, respectively). These results suggest that low-cost IRFs benefit from economies of scale.
- Low-cost IRFs were disproportionately freestanding and for profit. Still, 37 percent of IRFs in the lowest cost quartile were hospital based and 28 percent were nonprofit. By contrast, in the highest cost quartile, 94 percent were hospital based and 65 percent were nonprofit.

Chart 8-15. The top 25 MS-LTC-DRGs accounted for almost 70 percent of LTCH discharges in 2017

MS-LTC -DRG	Description	Discharges	Share of cases
189	Pulmonary edema and respiratory failure	18,835	16.2%
207	Respiratory system diagnosis with ventilator support 96+ hours	13,838	11.9
871	Septicemia without ventilator support 96+ hours with MCC	7,056	6.1
208	Respiratory system diagnosis with ventilator support <96 hours	2,825	2.4
592	Skin ulcers with MCC	2,716	2.4
177	Respiratory infections and inflammations with MCC	2,412	2.1
949	Aftercare with CC/MCC	2,381	2.0
539	Osteomyelitis with MCC	2,337	2.0
166	Other respiratory system OR procedures with MCC	2,246	1.9
981	Extensive OR procedure unrelated to principal diagnosis with MCC	2,222	1.9
682	Renal failure with MCC	2,207	1.9
190	Chronic obstructive pulmonary disease with MCC	1,814	1.6
291	Heart failure and shock with MCC	1,733	1.5
559	Aftercare, musculoskeletal system and connective tissue with MCC	1,681	1.4
4	Tracheostomy with ventilator support 96+ hours or primary diagnosis except face, mouth, and neck without major OR	1,579	1.4
314	Other circulatory system diagnoses with MCC	1,518	1.3
919	Complications of treatment with MCC	1,508	1.3
862	Postoperative and post-traumatic infections with MCC	1,483	1.3
570	Skin debridement with MCC	1,455	1.2
853	Infectious and parasitic diseases with OR procedure with MCC	1,438	1.2
870	Septicemia with ventilator support 96+ hours	1,303	1.1
638	Diabetes with CC	1,255	1.1
689	Kidney and urinary tract infections with MCC	1,201	1.0
637	Diabetes with MCC	1,186	1.0
371	Major gastrointestinal disorder and peritoneal infections with MCC	1,098	0.9
	Top 25 MS-LTC-DRGs	79,327	68.1
	Total	116,424	100.0

Note: MS-LTC-DRG (Medicare severity long-term care diagnosis related group), LTCH (long-term care hospital), MCC (major complication or comorbidity), CC (complication or comorbidity), OR (operating room). MS-LTC-DRGs are the case-mix system for LTCHs.

Source: MedPAC analysis of Medicare Provider Analysis and Review data from CMS.

- Cases in LTCHs are concentrated in a relatively small number of MS-LTC-DRGs. In 2017, the top 25 MS-LTC-DRGs accounted for 68.1 percent of LTCH Medicare cases.
- As in 2016, the two most frequent diagnoses in LTCHs in 2017 were pulmonary edema and respiratory failure and a respiratory system diagnosis with ventilator support of more than 96 hours.
- Over 35 percent of all LTCH cases were respiratory conditions—a statistic that has been relatively stable since the 2008 implementation of the MS-LTC-DRGs. Nonprofit LTCHs care for a higher share of beneficiaries with a respiratory-related illness compared with for-profit LTCHs (data not shown).

Chart 8-16. The number of Medicare LTCH cases and users decreased by over 7 percent between 2016 and 2017

						Average annual change		ange
	2012	2014	2015	2016	2017	2012– 2015	2015– 2016	2016– 2017
Cases	140,463	133,984	131,129	125,586	116,424	-2.3%	-4.2%	-7.3%
Cases per 10,000 FFS beneficiaries	37.7	35.4	34.4	32.5	30.2	-3.0	-5.7	-7.0
Spending per FFS beneficiary	\$148.78	\$141.61	\$140.17	\$131.94	\$115.44	-2.0	<b>–</b> 5.9	-12.5
Payment per case	\$39,493	\$40,015	\$40,719	\$40,656	\$38,253	1.0	-0.2	-5.9
Length of stay (in days)	26.2	26.3	26.6	26.8	26.3	0.4	1.1	-2.2
Users	123,652	118,288	116,088	111,171	103,322	-2.1	-4.2	-7.1

Note: LTCH (long-term care hospitals), FFS (fee-for-service). Yearly figures presented in the table are rounded, but the average annual changes were calculated using unrounded data.

Source: MedPAC analysis of Medicare Provider Analysis and Review data from CMS.

- The Pathway for SGR Reform Act of 2013 created a "dual payment-rate structure" for LTCHs where, beginning in fiscal year 2016, only certain LTCH cases continue to qualify for the standard LTCH perspective payment system rate, while cases that do not meet a set of criteria are paid a lower "site-neutral" rate.
- Controlling for the number of FFS beneficiaries, the number of LTCH cases declined by 3
  percent annually between 2012 and 2015. The number of cases declined more rapidly
  following the implementation of the dual payment-rate structure. From 2016 to 2017 the
  number of LTCH cases declined by 7 percent.
- Reductions in payment per case since 2015 reflect a lower payment rate for cases that did
  not meet the criteria following the implementation of the dual payment-rate structure.
- Since 2012, the average length of stay has varied from 26.2 to 26.8. A decrease of 2.2
  percent from 2016 largely reflects a reduction in the length of stay for cases that do not meet
  the criteria under the dual payment-rate structure because these cases no longer count
  toward the LTCH average length of stay requirement of greater than 25 days.
- Reflecting the decline in the number of Medicare cases, the number of beneficiaries who
  had LTCH stays ("users") also decreased by 7.1 percent from 2016 to 2017.

Chart 8-17. The aggregate LTCH Medicare margin continued to fall in 2017

Type of LTCH	Share of discharges in 2017	Medicare margin						
		2012	2013	2014	2015	2016	2017	
All	100%	7.6%	6.8%	5.2%	4.7%	3.9%	-2.2%	
Urban	96	7.7	6.9	5.2	4.7*	4.0	-1.9	
Rural	4	3.4	6.0	5.1	3.5*	-0.2	-13.6	
Nonprofit	12	-0.2	-1.1	-2.2	-5.9	-5.7	-13.0	
For profit	87	9.3	8.6	7.0	6.5	5.5	-0.3	

Note:

LTCH (long-term care hospital).

\*CMS adopted new core-based statistical area codes for LTCHs beginning in fiscal year 2015; this change reclassified several facilities as urban that had previously been classified as rural, and therefore the margin across categories of urban and rural facilities between 2014 and 2015 should not be compared.

Source: MedPAC analysis of cost report data from CMS.

- From 2009 (data not shown) through 2012, LTCH margins climbed as providers consistently held cost growth below that of payment growth. After peaking in 2012, the aggregate LTCH margin fell to 6.8 percent in 2013, primarily due to policy changes that reduced payments, including the start of a three-year phase-in of a downward adjustment for budget neutrality and the effect of sequestration beginning on April 1, 2013.
- In fiscal year 2016, CMS began implementing a "dual payment-rate structure" where certain LTCH cases not meeting a set of criteria specified in law are paid a lower "site-neutral" rate. The aggregate Medicare margin fell to -2.2 percent in 2017.
- Financial performance in 2017 varied across LTCHs. The aggregate Medicare margin for for-profit LTCHs (which accounted for 87 percent of all Medicare discharges from LTCHs) decreased from 6.5 percent in 2015 to -0.3 percent in 2017. The aggregate margin for nonprofit LTCHs decreased from -5.9 percent in 2015 to -13.0 percent in 2017.

Chart 8-18. The volume and share of LTCH cases meeting the criteria for the standard LTCH PPS rate increased from 2016 to 2017

				Percent change	
Cases meeting the criteria	2015	2016	2017	2015–2016	2016–2017
Cases Share of all LTCH cases	72,429 55%	72,318 58%	74,666 64%	-0.2%	3.2%
Cases per 10,000 FFS beneficiaries	19.0	18.7	19.4	-1.7	3.6
Payment per case	\$46,217	\$46,223	\$46,127	0.0	-0.2
Spending (in billions)	\$3.3	\$3.3	\$3.4	-0.1	3.0
Length of stay (in days)	28.5	27.9	27.9	-2.0	-0.1
Aggregate Medicare margin	6.8%	6.3%	5.8%	N/A	N/A

Note: LTCH (long-term care hospital), PPS (prospective payment system), FFS (fee-for-service), N/A (not applicable). Yearly figures presented in the table are rounded, but the percent changes were calculated using unrounded data.

Source: MedPAC analysis of cost report data from CMS.

- The Pathway for SGR Reform Act of 2013 created a "dual payment-rate structure" for LTCHs where, beginning in fiscal year 2016, only certain LTCH cases continue to qualify for the standard LTCH PPS rate, while cases that do not meet a set of criteria are paid a lower "site-neutral" rate.
- The number of cases meeting the criteria to qualify for the standard LTCH PPS rate per 10,000 FFS beneficiaries increased by 3.6 percent in 2017, in contrast to the 7.0 percent reduction in all LTCH cases per 10,000 FFS beneficiaries (see Chart 8-16).
- After decreasing from 28.5 days in 2015 to 27.9 days in 2016, the average length of stay for cases meeting the criteria to qualify for the standard LTCH PPS rate remained stable in 2017.
- The aggregate Medicare margin for cases meeting the criteria to qualify for the standard LTCH PPS rate decreased from 6.8 percent in 2015 to 5.8 percent in 2017. Because cases that meet the criteria are generally more profitable under the dual payment-rate structure than those that do not, we expect stronger financial performance under Medicare for LTCHs that treat higher shares of these cases.

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